

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

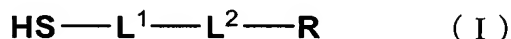
1. (Currently Amended) A method for immobilizing nucleic acid on a solid phase-substrate ~~by co-adsorption~~, comprising:

forming a composition comprising:

a total concentration of 0.1 to 2 μ M of a nucleic acid as a probe, and

a compound or a salt thereof, the compound being represented by the

following formula:



where:

L^1 is a single bond or an alkylene group having 1 to 15 carbon atoms;

L^2 is selected from the group consisting of a single bond, a nucleic acid, a polyethylene glycol group, -CO-NH-, and -NH-CO-;

R is selected from the group consisting of a hydroxyl group, an amino group, a ferrocenyl group, and a carboxyl group; and

L^1 and L^2 are not both single bonds;

then bringing the solid phase substrate into contact with the composition; and

incubating the composition in contact with a surface of the solid phase

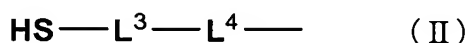
~~substrate, substrate to immobilize the nucleic acid and the compound or the salt thereof on the solid phase substrate by co-adsorption,~~

wherein the composition comprises a nucleic acid and a compound represented by formula I ~~in at~~ a ratio of 40/60 to 60/40.

2. (Previously Presented) The method according to claim 1, wherein:

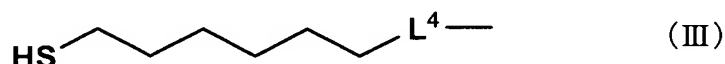
the nucleic acid as a probe comprises a single-stranded polynucleotide or oligonucleotide consisting of modified or unmodified nucleotides selected from the group consisting of DNA, RNA, PNA, amino cyclohexanyl nucleic acid, and hexitol nucleic acid.

3. (Previously Presented) The method according to claim 1, wherein the nucleic acid as the probe comprises at a 3' end or a 5' end a group represented by the following formula:



wherein L³ is an alkylene group having 1 to 15 carbon atoms, and L⁴ is a single bond or a spacer.

4. (Previously Presented) The method according to claim 1, wherein the nucleic acid as the probe has at a 5' end a group represented by the following formula:



wherein L^4 is a single bond or a spacer.

5. (Previously Presented) The method according to claim 4, wherein

L⁴ is selected from the group consisting of a nucleic acid, -CO-NH-, -NH-CO-, a polyethylene glycol group, and a polyethylene glycol phosphate group.

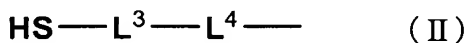
6. (Previously Presented) The method according to claim 1, wherein the total concentration of the nucleic acid and the compound represented by formula I or a salt thereof in the composition is 0.5 to 1.5 μM .

7. (Previously Presented) The method according to claim 1, wherein the total concentration of the nucleic acid and the compound represented by formula I or a salt thereof in the composition is 1 μ M.

8. (Canceled)

9. (Previously Presented) The method according to claim 1, wherein R in the compound represented by formula I is a hydroxyl group.
10. (Withdrawn) The method according to claim 1, wherein L^1 in the formula I is a single bond, and L^2 is a polyethylene glycol group.
11. (Previously Presented) The method according to claim 1, wherein L^1 in the compound represented by formula I is an alkylene group having 4 to 8 carbon atoms, and L^2 is a single bond.
12. (Previously Presented) The method according to claim 1, wherein the formula represented by compound I is 6-mercapto-1-hexanol.
13. (Original) The method according to claim 1, wherein the solid phase substrate is a single layered substrate or a multiple layered substrate comprising at least one material selected from the group consisting of glass, polymer resin and metal.
14. (Previously Presented) The method according to claim 1, wherein a surface of the solid phase substrate on which nucleic acid is adsorbed is coated with a thin gold film.
15. (Previously Presented) The method according to claim 1, wherein the solid phase substrate comprises a glass substrate and a thin gold film vapor-deposited on a surface of the glass substrate.
16. (Previously Presented) The method according to claim 1, wherein the nucleic acid as the probe has a base length of 15 to 30 nucleotides.
17. (Original) The method according to claim 1, wherein the incubation is carried out at a temperature of 25°C to 40°C.
18. (Currently Amended) The method according to claim 1, wherein:
the nucleic acid as the probe comprises:

a single-stranded polynucleotide or oligonucleotide comprising nucleotides selected from the group consisting of DNA, RNA, and PNA; and at ~~the~~ a 3' end or ~~the~~ a 5' ~~end~~ end, a group represented by the following formula:



wherein L^3 is an alkylene group, and L^4 is a single bond or a spacer; the formula represented by compound I is 6-mercapto-1-hexanol; the total concentration of the nucleic acid and 6-mercapto-1-hexanol in the composition is 0.5 to 1.5 μM ; and the solid phase substrate comprises a glass substrate and a thin gold film vapor-deposited on a surface of the glass substrate.

19-25. (Canceled)